

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A wireless ad-hoc communication system ~~constituted~~ by including a plurality of terminals, the communication system comprising:

a first terminal ~~that encrypts~~ configured to encrypt a payload of a broadcast frame and ~~that transmits~~ to transmit the broadcast frame; and

a second terminal ~~that receives~~ configured to receive the broadcast frame and ~~that decodes~~ to decode the payload of the broadcast frame,

wherein the first terminal ~~encrypts~~ is configured to encrypt the payload of the broadcast frame using a broadcast encryption key assigned to the first terminal, and

the second terminal ~~decodes~~ is configured to decode the payload of the broadcast frame using the broadcast encryption key assigned to the first terminal.

Claim 2 (Currently Amended): The wireless ad-hoc communication system according to claim 1, wherein the second terminal includes:

an encryption-key management list table having at least an encryption-key management list ~~comprising~~ including a set of a terminal identifier of the first terminal and the broadcast encryption key assigned to the first terminal;

means for searching the encryption-key management list table based on the terminal identifier of the first terminal included in ~~a start~~ an origination-terminal identifier of the received broadcast frame to extract the corresponding broadcast encryption key assigned to the first terminal; and

means for decoding the payload of the broadcast frame using the extracted broadcast encryption key assigned to the first terminal.

Claim 3 (Currently Amended): The wireless ad-hoc communication system according to claim 1, wherein the first terminal includes:

a generated-key table ~~that stores~~ configured to store the broadcast encryption key assigned to the first terminal;

means for encrypting the payload of the broadcast frame using the broadcast encryption key assigned to the first terminal stored in the generated-key table; and

means for transmitting the encrypted broadcast frame.

Claim 4 (Currently Amended): A terminal comprising:

an encryption-key management list table having at least one encryption-key management list comprising a set of a terminal identifier of a different terminal and a broadcast encryption key assigned to the different terminal;

means for searching the encryption-key management list table for the encryption-key management list including ~~a start~~ an origination-terminal identifier of a received broadcast frame to extract the corresponding broadcast encryption key; and

means for decoding a payload of the broadcast frame using the extracted broadcast encryption key.

Claim 5 (Currently Amended): A terminal comprising:

an encryption-key management list table having at least one encryption-key management list ~~that stores~~ configured to store a unicast encryption key between said terminal and a different terminal and a broadcast encryption key assigned to the different terminal in association with a terminal identifier of the different terminal;

means for searching, when ~~an end~~ a destination-terminal identifier of a received frame is a broadcast address, the encryption-key management list table for the encryption-key

management list including ~~a-start an origination~~-terminal identifier of the frame to extract the corresponding broadcast encryption key as an encryption key, and when the [[end]] ~~destination~~-terminal identifier of the received frame is other than a broadcast address, searching the encryption-key management list table for the encryption-key management list including ~~a-start an origination~~-terminal identifier of the frame to extract the corresponding unicast encryption key as the encryption key; and

means for decoding a payload of the frame using the extracted encryption key.

Claim 6 (Currently Amended): A terminal comprising:

a generated-key table ~~that stores~~ configured to store a broadcast encryption key assigned to said terminal;

means for encrypting a payload of a broadcast frame using the broadcast encryption key; and

means for transmitting the encrypted broadcast frame.

Claim 7 (Currently Amended): A terminal comprising:

a generated-key table ~~that stores~~ configured to store a broadcast encryption key assigned to said terminal;

an encryption-key management list table having at least one encryption-key management list ~~that stores~~ configured to store a unicast encryption key between said terminal and a different terminal in association with a terminal identifier of the different terminal;

means for, when a frame to be transmitted is a broadcast frame, encrypting a payload of the broadcast frame using the broadcast encryption key of the generated-key table, and when the frame to be transmitted is a unicast frame, searching the encryption-key

management list table for the encryption-key management list including ~~an end a destination-~~ terminal identifier of the unicast frame to encrypt a payload of the unicast frame using the corresponding unicast encryption key; and  
means for transmitting the encrypted frame.

Claim 8 (Currently Amended): A terminal comprising:  
means for encrypting a terminal identifier and a broadcast encryption key of ~~said the~~ terminal using a unicast encryption key assigned to a transmission-destination terminal; and  
means for transmitting the encrypted terminal identifier and broadcast encryption key of ~~said the~~ terminal to the transmission-destination terminal.

Claim 9 (Currently Amended): A terminal comprising:  
an encryption-key management list table having at least one encryption-key management list ~~that stores~~ configured to store a broadcast encryption key of a different terminal in association with a terminal identifier of the different terminal;  
means for encrypting the encryption-key management list using a unicast encryption key assigned to a transmission-destination terminal; and  
means for transmitting the encrypted encryption-key management list to the transmission-destination terminal.

Claim 10 (Currently Amended): A terminal comprising:  
means for receiving a terminal identifier and a broadcast encryption key of a different terminal from the different terminal;  
means for encrypting the terminal identifier and the broadcast encryption key of the different terminal using a broadcast encryption key assigned to ~~said the~~ terminal; and

means for broadcasting the encrypted terminal identifier and broadcast encryption key of the different terminal.

Claim 11 (Currently Amended): A method for decoding a broadcast frame in a terminal that includes an encryption-key management list table having at least one encryption-key management list ~~comprising~~ including a set of a terminal identifier of a different terminal and a broadcast encryption key assigned to the different terminal, the method comprising ~~the steps of~~:

searching the encryption-key management list table for the encryption-key management list including ~~a start an origination~~-terminal identifier of a received broadcast frame to extract the corresponding broadcast encryption key; and

decoding a payload of the broadcast frame using the extracted broadcast encryption key.

Claim 12 (Currently Amended): A method for encrypting a broadcast frame in a terminal that includes a generated-key table storing a broadcast encryption key assigned to said terminal, the method comprising ~~the steps of~~:

encrypting a payload of the broadcast frame using the broadcast encryption key assigned to said terminal stored in the generated-key table; and  
transmitting the encrypted broadcast frame.

Claim 13 (Currently Amended): A method for distributing a broadcast encryption key in a second terminal, the method comprising ~~the steps of~~:

receiving a terminal identifier and a broadcast encryption key [[of]] assigned to a first terminal that are encrypted using a unicast encryption key between the first terminal and the second terminal;

decoding the encrypted terminal identifier and broadcast encryption key [[of]] assigned to the first terminal using the unicast encryption key;

encrypting a terminal identifier and a broadcast encryption key [[of]] assigned to the second terminal using the unicast encryption key; and

transmitting the encrypted terminal identifier and broadcast encryption key [[of]] assigned to the second terminal to the first terminal.

Claim 14 (Currently Amended): A method for distributing a broadcast encryption key in a second terminal, the method comprising the steps of:

receiving a terminal identifier and a broadcast encryption key [[of]] assigned to a first terminal that are encrypted using a unicast encryption key between the first terminal and the second terminal;

decoding the encrypted terminal identifier and broadcast encryption key [[of]] assigned to the first terminal using the unicast encryption key;

encrypting the terminal identifier and the broadcast encryption key [[of]] assigned to the first terminal using a broadcast encryption key assigned to the second terminal; and

transmitting the encrypted terminal identifier and broadcast encryption key [[of]] assigned to the first terminal to a third terminal.

Claim 15 (Currently Amended): A computer readable storage medium in which a program is recorded that causes a terminal including an encryption-key management list table having at least one encryption-key management list comprising including a set of a terminal

identifier of a ~~different~~ transmission terminal and a broadcast encryption key assigned to the ~~different~~ transmission terminal to execute ~~the steps of a method comprising:~~

searching the encryption-key management list table for the encryption-key management list including ~~a start an origination~~-terminal identifier of a received broadcast frame to extract the corresponding broadcast encryption key; and

decoding a payload of the broadcast frame using the extracted broadcast encryption key.

Claim 16 (Currently Amended): A computer readable storage medium in which a program is recorded that causes a terminal including a generated-key table that stores a broadcast encryption key assigned to said terminal to execute ~~the steps of a method comprising:~~

encrypting a payload of a broadcast frame using the broadcast encryption key stored in the generated-key table; and

transmitting the encrypted broadcast frame.

Claim 17 (Currently Amended): A computer readable storage medium in which a program is recorded that causes a second terminal to execute ~~the steps of a method comprising:~~

receiving a terminal identifier and a broadcast encryption key of a first terminal that are encrypted using a unicast encryption key between the first terminal and the second terminal;

decoding the encrypted terminal identifier and broadcast encryption key of the first terminal using the unicast encryption key;

encrypting a terminal identifier and a broadcast encryption key of the second terminal using the unicast encryption key; and

transmitting the encrypted terminal identifier and broadcast encryption key of the second terminal to the first terminal.

Claim 18 (Currently Amended): A computer readable storage medium in which a program is recorded that causes a second terminal to execute ~~the steps of a method comprising:~~

receiving a terminal identifier and a broadcast encryption key [[of]] assigned to a first terminal that are encrypted using a unicast encryption key between the first terminal and the second terminal;

decoding the encrypted terminal identifier and broadcast encryption key [[of]] assigned to the first terminal using the unicast encryption key;

encrypting the terminal identifier and the broadcast encryption key [[of]] assigned to the first terminal using a broadcast encryption key assigned to the second terminal; and

transmitting the encrypted terminal identifier and broadcast encryption key [[of]] assigned to the first terminal to a third terminal.